

Translation

PATENT COOPERATION TREATY

PCT

PCT/JP2003/016725



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PF15Z09/KKA	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/016725	International filing date ( <i>day/month/year</i> ) 25 December 2003 (25.12.2003)	Priority date ( <i>day/month/year</i> ) 26 December 2002 (26.12.2002)
International Patent Classification (IPC) or national classification and IPC G02B 6/13		
Applicant NIPPON TELEGRAPH AND TELEPHONE CORPORATION		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.  <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  These annexes consist of a total of _____ sheets.
3. This report contains indications relating to the following items:  I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 25 December 2003 (25.12.2003)	Date of completion of this report 01 July 2004 (01.07.2004)
Name and mailing address of the IPEA/JP  Facsimile No.	Authorized officer  Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCOMP2003/016725

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☐ the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the claims:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the drawings:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

PCT/JP03/16725

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	4, 7-10, 12-19, 21-23, 25, 26, 28-31, 33-35, 37-40, 42-57	YES
	Claims	1-3, 5, 6, 11, 20, 24, 27, 32, 36, 41	NO
Inventive step (IS)	Claims	4, 7-10, 12-19, 21-23, 25, 26, 28-31, 33-35, 37-40, 42-57	YES
	Claims	1-3, 5, 6, 11, 20, 24, 27, 32, 36, 41	NO
Industrial applicability (IA)	Claims	1-57	YES
	Claims		NO

### 2. Citations and explanations

Document 1: JP, 10-186184, A (FUJI XEROX CO., LTD.), 14 July 1998 (14.07.98)  
 Document 2: JP, 53-100848, A (OKI ELECTRIC INDUSTRY CO., LTD.), 02-September 1978 (02.09.78)

Claim 1 says "A local position inside a wave transmission medium is determined by a virtual pixel demarcated by a virtual mesh, and the spatial refractive index distribution of said wave transmission medium is created by the refractive index of each of said pixels," but said pixel demarcation method is not specified, so said pixel is arbitrarily demarcated. In light of this point, the invention of claim 1 is described in paragraphs [0013]~[0016] and Fig. 2 and so forth of document 1 cited in the ISR and on page 2, upper right column, lines 7-13 and Fig. 1 and so forth of document 2 cited in the ISR. Therefore the subject matter of claim 1 is not novel and does not involve an inventive step.

The subject matter of claims 2 and 6 is an invention of a thing specified by a setting method that sets the spatial refractive index distribution of said wave transmission medium by setting the refractive index of each of said pixels, but the thing invention means the thing itself that is ultimately obtained, so the setting method does not appear to be an item that specifies the thing invention. In light of this point, the invention of claims 2 and 6 is described in paragraphs [0013]~[0016] and Fig. 2 and so forth of document 1 cited in the ISR and on page 2, upper right column, lines 7-13 and Fig. 1 and so forth of document 2 cited in the ISR. Therefore the subject matter of claims 2 and 6 is not novel and does not involve an inventive step.

The subject matter of claims 3, 5, and 11 is described in paragraphs [0013]~[0016] and Fig. 2 and so forth of document 1 cited in the ISR and on page 2, upper right column, lines 7-13 and Fig. 1 and so forth of document 2 cited in the ISR. Also, the subject matter of claims 20, 24, 27, 32, 36, and 41 is described in paragraphs [0013]~[0016], Fig. 1, Fig. 2 and so forth of document 1 cited in the ISR, so the subject matter of claims 3, 5, 11, 20, 24, 27, 32, 36, and 41 is not novel and does not involve an inventive step.

The subject matter of claims 4, 7-10, 12-19, 21-23, 25, 26, 28-31, 33-35, 37-40, and 42-57 is not described in any of the documents cited in the ISR and appears to be non-obvious to a person skilled in the art.